



WIP: Streamer and Viewer Interactions in Software and Game Development Live Streams

Ella Kokinda
ekokind@clemsn.edu

Paige Rodeghero
prodegh@clemsn.edu

D. Matthew Boyer
dmboyer@clemsn.edu



Link to paper!

Intellectual Merit

This work in progress aims to deepen our understanding of the human and social aspects of software development live streaming, knowledge transfer in live streams, and discuss the observed benefits and challenges of live streaming for streamers and viewers. Expected results from the content analysis are expected to support information-seeking behaviors as seen in other forms of informal learning and build on prior work from streamers' perspectives [1, 2].

Background and Prior Work

- Live streaming software and game development provides an outlet and opportunity for self-education, accountability, and perceived skill improvement for developers who stream [1]
- Live streaming has also shown benefits over prerecorded videos that gives streamers a lower barrier to entry to start producing content [3]
- Little to no research on informal learning and live streaming software development

Introduction

Live streaming is an increasingly popular medium for throwing back the curtain on software development where streamers and viewers share their knowledge and experiences. Popular platforms like Twitch and YouTube enable developers to stream live coding sessions where people around the world can engage in real-time collaboration, feedback, knowledge sharing, and skill development.

Motivation & Implications

Our motivation is to continue to justify the importance of and promote informal learning (IL) opportunities for computer science students and software engineers by understanding where IL occurs in live streaming for software and game developers.

We welcome any feedback or comments on our work!

Contact: Ella Kokinda, ekokind@clemsn.edu

Methods

- 56 hours of software and game development streams from Twitch and YouTube
- Deductive thematic content analysis of video and text logs

Preliminary Results

Interaction types

- information seeking, expression of opinion, entertainment, information sharing, social

Knowledge Transfer

- occurring during think-aloud from streamers throughout stream
- occasionally prompted by viewer question

Problem Solving

- currently varied between streamers - some accept help and suggestions, others ignore chat until they exhaust options

RQ 1: What types of interactions occur during software and game development live streams?

- See the breakdown of information seeking versus social interactions
- Identify the types of interactions -- technical and social
- See the frequency of these types of interactions

RQ 2: Where is knowledge being transferred during software and game development live streams?

- Frequency of the direction of knowledge transfer for each interaction type
- Understand knowledge sharing is limited to mostly think-aloud by the streamers
- Identify instances or prompts where streamers provide mentorship and impart knowledge to viewers

RQ 3: What types of knowledge are being transferred?

- See the breakdown of technical versus social knowledge -- meaning are they talking more about programming or development more or off-topic, non-technical

RQ 4: How does knowledge transfer affect real-time problem solving for streamers

- See if viewer assistance helps a streamer fix a problem
- See if streamers take suggestions
- Identify streamer reactions types to viewer suggestions